

SAN RAPHAEL[™] PRESSURE LITE[™] VITREOUS CHINA SIPHON JET TOILET

BEFORE YOU BEGIN

HOW TO USE THESE INSTRUCTIONS

Please read these instructions carefully to familiarize yourself with the required tools, materials, and installation sequences. Follow the sections that pertain to your particular installation. This will help you avoid costly mistakes. In addition to proper installation, read all operating and safety instructions.

All information in this manual is based on the latest product information available at the time of publication. Kohler Co. reserves the right to make changes in product characteristics, packaging, or availability at any time without notice.

These instructions contain important care, cleaning, and warranty information – please leave for the consumer.

INSTALLER HAZARD NOTIFICATION



WARNING: Risk of injury or water damage. Contents of reservoir under pressure can cause severe injury. Do not open or service before reading installation instructions or service instructions. Turn off water supply and flush unit to release pressure before attempting any service.



CAUTION: Risk of product damage. Do not use any oils or lubricants on the Pressure Lite system.



CAUTION: Risk of product damage. The fittings in this toilet require no adjustment. The fittings in this toilet are preset. Any adjustment or modifications of the product are not normal usage and void the warranty.



WARNING: Risk of injury or product damage. Handle vitreous china products very carefully. Vitreous china can break and chip if you overtighten bolts and nuts.

NOTICE: If the new toilet is not installed immediately, temporarily stuff a rag in the closet flange. **Follow all local plumbing and electrical codes.**

PRODUCT PROPERTIES

- Vitreous china siphon jet toilet.
- Pressure Lite[™] system.
- Water depth from rim is 5-3/4".
- 2-1/4" passageway.
- For roughing-in and overall dimensions, See Fig. #3.
- Fixture dimensions are nominal and conform to tolerances by ANSI/ASME standards (A112.19.2).

PRODUCT REQUIREMENTS

- The supply stop must be 2-5/8" above floor-line and 7-3/4" left of the closet flange centerline.
- Since all toilets do not have the same supply rough-in, you may have to change the location of the supply stop to install this toilet.
- Closet flange must be 12" on-center from wall.
- Seat post holes are on 5-1/2" centers.
- For most satisfactory operation, the toilet requires 20 p.s.i. static pressure at the supply stop. Maximum static pressure is not to exceed 80 p.s.i.

ORDERING INFORMATION

Toilet	 K-3394
When specified:	
3/8" supply	 K-7637
Floor bolts	 . 21401

NOTE: For service parts ordering information, see the separate Service Parts document enclosed with the product.

MATERIALS REQUIRED

- Supply stop (3/8" recommended)
- Closet flange
- Toilet gasket (wax seal)
- Toilet T-bolts 1/2" or 5/16" diameter (2 required)
- Toilet supply tubing

TOOLS REQUIRED

- 10" adjustable wrench
- 12" pipe wrench
- Tubing cutter
- Hacksaw
- Level
- Putty knife
- Metal file
- Tape measure
- Screwdriver

NOTE: Site preparation may require additional tools.

SITE PREPARATION

REMOVE EXISTING TOILET

NOTICE: Carefully inspect the new fixture for any sign of damage before removing the existing toilet. If any damage to the vitreous china or Pressure Lite system components is discovered, stop the installation and call your dealer for assistance.

Inspect the complete toilet to ensure that the:

- Components and outlet manifold are attached securely.
- Trip lever and piston actuation arm move freely.
- Reservoir is securely mounted.
- Vitreous china is not damaged.

Turn off the water supply.

Flush the toilet, and sponge out the remaining water from the tank and bowl.

Disconnect the supply stop, and remove the existing tank and bowl.

Remove the old gasket from the floor and closet flange with a putty knife.

Remove the old T-bolts (the T-shaped bolts in the closet flange) and discard.

NOTICE: If the new toilet is not installed immediately, temporarily stuff a rag in the closet flange.

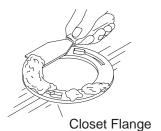


Fig. #1

ROUGH-IN PLUMBING

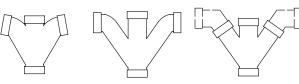
Turn off the main water supply.

Install or relocate the supplies and outlets as necessary to conform to roughing-in dimensions. **See Fig. #3**. For supply stop location, **See Fig. #4**.

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CAUTION: Risk of trap seal loss in back-to-back installations. See Fig. #2. To prevent possible trap seal loss, the back-to-back Pressure Lite toilet should be connected to a vertical stack using one of the following three fittings:

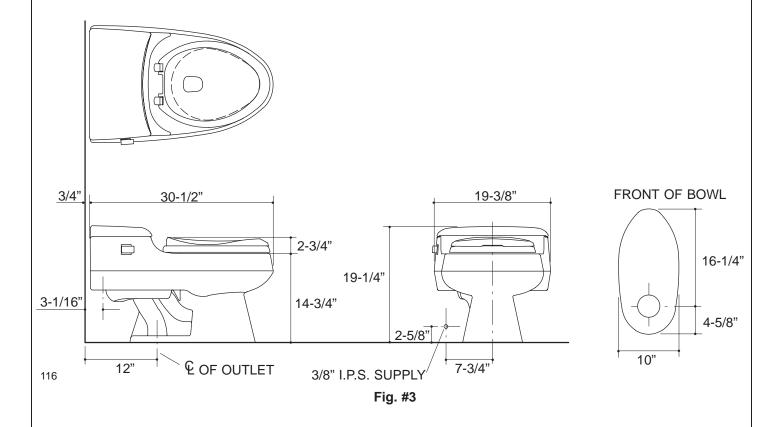
- Double fixture fitting
- Double combination wye and 1/8 bends
- Double wye and 1/8 bends



Double Fixture Fitting Double Combination Wye and 1/8 Bends Double Wye and 1/8 Bends

Fig. #2

ROUGHING-IN DIMENSIONS



INSTALL SUPPLY STOP

For supply installation, refer to the instructions packed with the supply stop.

Locate the supply stop so it is 2-5/8" above the floor line, and 7-3/4" to the left of the centerline of the closet flange.

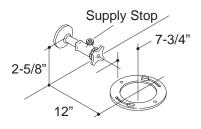


Fig. #4

Install new 1/4" or 5/16" diameter T-bolts.

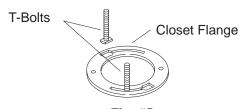


Fig. #5

INSTALLATION

INSTALL TOILET GASKET

Carefully set the new toilet upside down on padding.

Firmly install the gasket onto the toilet outlet. If using a gasket with an integral plastic sleeve, position the gasket with sleeve facing away from the toilet.

If a rag or other plug is in the closet flange, remove the rag from the closet flange before setting the toilet.

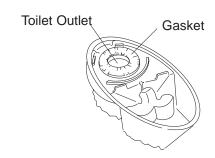


Fig. #6

ALIGN AND SET TOILET

Carefully align and lower the toilet over the closet flange and T-bolts.



CAUTION: Risk of external leakage. Do not lift or rock the toilet after placement – a new toilet gasket must be installed if you break the watertight seal.

Apply full body weight to toilet rim to set seal.

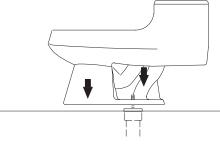


Fig. #7

SECURE TOILET

Install the bolt cap bases, washers, and nuts onto the exposed T-bolts.



CAUTION: Risk of personal injury or product damage. Overtightening may cause breakage or chipping of the vitreous china.

Handtighten the nuts, then tighten them an additional 1/2-turn with a wrench. If the T-bolts extend more than 1/4" above the top of the nut, cut off the excess with a hacksaw, and file the cut edges. Wipe away any residue.

Install the bolt caps.

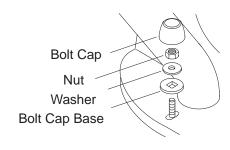


Fig. #8

CONNECT SUPPLIES

Carefully bend the supply stop tubing to fit. Measure for required penetration into the supply stop. Cut and de-burr the tubing. Position the connection hardware onto the tubing, as shown. Handtighten the coupling nut first, then the compression nut.



CAUTION: Risk of property damage. Do not overtighten any of these nuts, or you may deform the connections and cause leakage. Do not use tools to tighten plastic nuts.

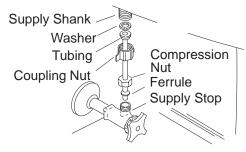


Fig. #9

PRESSURE LITE SYSTEM



WARNING: Risk of injury or water damage. Contents of reservoir under pressure can cause severe injury. Do not open or service before reading the installation instructions or service instructions. Turn off the water supply, and flush the unit to release pressure before attempting any service.



CAUTION: Risk of product damage. Do not use any oils or lubricants on the Pressure Lite system.

OPERATION

The vitreous china bowl directs the flushing water flow and houses the Pressure Lite system.

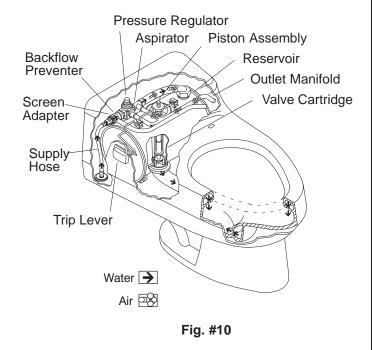
The reservoir contains the complete operating cartridge assembly and is the container for the pressurized 1.6 gallons of water used for each flush.

The control components consist of the screen adapter, backflow preventer, pressure regulator, and aspirator. These components work with the incoming pressurized supply line water to provide a regulated pressure flush to the toilet bowl.

A complete flush cycle is two separate functions.

When the trip lever is operated, the reservoir piston assembly is lifted. This allows pressurized water to be directed to the siphon jet bowl for complete flushing action. As the water level in the reservoir drops the piston will close, stopping water flow to the bowl.

After flushing, a charge cycle takes place. Supply line water flows into the reservoir through the screen adapter, backflow preventer and pressure regulator. The water then flows across the aspirator, which mixes a small amount of air with the water. This fills the reservoir until a pressure of approximately 20 p.s.i. is reached. The toilet will be ready for the next flush within 60 to 90 seconds. If the toilet is not ready for the next flush within that time, refer to the troubleshooting chart.



START-UP

Turn on the water supply to bring the Pressure Lite system to operating pressure (approximately 1 minute).

Check for leaks. Slight retightening of leaking connections should stop any seal leaks.

Flush and repressurize the toilet three times to stabilize the system. Some water may appear in the outlet manifold during the flush, but constant remaining water in the outlet manifold after flushing indicates a malfunction.

GAP CLEARANCE

If toilet does not activate, the gap between the trip lever and piston actuation arm may need to be reset. Make sure the trip lever handle is installed and trip lever nut is tight. This is a left-hand thread; turn it counterclockwise to tighten.

Make sure the water supply is on, and supply line water has stopped flowing into the toilet.

Turn the piston nut until there is a 1/32" to 1/16" gap between the trip lever and piston actuation arm. Turn the piston nut clockwise to reduce the gap.

NOTE: Loss of gap clearance adjustment could cause leakage into the toilet bowl due to the piston not sealing properly. This condition could cause a continuous flow of water. If the problem is not corrected after adjustment, refer to the troubleshooting chart.

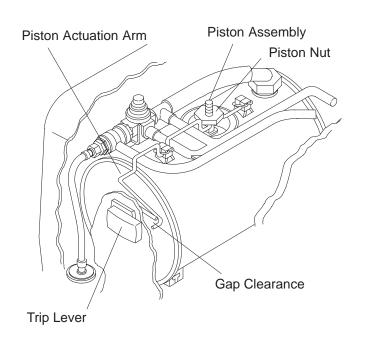
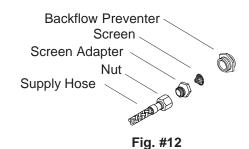


Fig. #11

SCREEN CLEANING

Shut off the water supply. Flush the toilet. Hold the trip lever down for approximately one minute to drain the water from the tank assembly. Disconnect the water supply line.

To clean any remaining water from the screen adapter, backflow preventer, and pressure regulator, disconnect the supply hose from the backflow preventer by turning the nut counterclockwise. Disassemble the screen adapter, and clean the screen with a medium to hard bristle brush. Replace the screen if necessary. After the screen is clean, reassemble in reverse order making sure the screen is assembled correctly.



INSTALL SEAT

To install the toilet seat, use the special seat attachment hardware and instructions packed with the toilet.

TROUBLESHOOTING CHART

The troubleshooting guide below is mean to for general aid only. All fittings in this toilet except for the piston nut are preset by the manufacturer to prevent adjustment. Any attempt to adjust the fittings (except the piston nut and winterizing) may damage the toilet. Such adjustments for modifications of this product are not normal usage and will void the warranty. For proper trip lever adjustment procedures, refer to Gap Clearance on Page 6 in these instructions. Any problems not covered in this chart should be referred to your installer/dealer.

SYMPTOM		POSSIBLE CAUSE			CORRECTIVE ACTION	
1.	No flush.	A.	Supply stop closed.	A.	Fully open supply stop.	
		В.	Trip lever loose.	В.	Tighten trip lever nut (turn counterclockwise to tighten).	
		C.	Trip lever does not actuate piston.	C.	Adjust piston nut (refer to Page 6).	
		D.	Obstruction within water inlet components.	D.	Replace inlet components (refer to installer/dealer for assistance).	
		E.	Screen adapter is clogged.	E.	Disassemble screen adapter and clean the screen with a medium to hard bristle brush. (Refer to installer/dealer or Screen Cleaning, on Page 6.) Replace the screen if necessary.	
2.	Poor flush.	A.	Bowl rim holes clogged.	A.	Clean under bowl rim.	
		В.	Trapway or drain line clogged.	В.	Plunge bowl, auger trap, auger drain to clear blockage.	
		C.	System not pressure charged.	C.	Adjust piston nut for proper actuation arm gap (refer to Page 6).	
		D.	Supply stop not opened.	D.	Fully open supply stop.	
		E.	Drain line vent clogged.	E.	Refer to installer/dealer for assistance.	
		F.	Screen adapter is clogged.	F.	Disassemble screen adapter and clean the screen with a medium to hard bristle brush. (Refer to installer/dealer or Screen Cleaning, on Page 6.) Replace the screen if necessary.	
3.	Bowl water continues to flow or tank fill water will not shut off.	A.	Piston assembly not seating properly.	A.	Adjust gap between trip lever and piston actuation arm (refer to Page 6).	
	Shut Oil.	В.	Piston actuation arm binding.	В.	Repair or replace actuation arm (refer to installer/dealer for assistance).	
		C.	Pressure regulator not working.	C.	Replace unit (refer to installer/dealer for assistance).	

IMPORTANT CONSUMER INFORMATION

CONSUMER RESPONSIBILITIES



CAUTION: Risk of product damage. Do not use any oil or lubricants on the Pressure Lite system. This may result in damage to the system.

NOTE: Cleaning of the Pressure Lite system is not necessary. If cleaning is desired, use only mild soap and water.

If you live in a hard water area, you should make certain that the holes in the rim are kept clean for proper bowl flushing. Toilet bowl cleaners should be used at least once a week. Use a long-handled brush to clean the rim holes and to clean as far into the trap as possible to prevent mineral deposits from forming.

Do not use abrasive cleaners or solvents.



WARNING: Do not use in-tank cleansers. Products containing chlorine (calcium hypochlorite) can seriously damage fittings in the tank. This damage can cause leakage and property damage.

Kohler Company shall not be responsible or liable for any damage to these tank fittings caused by the use of cleansers containing chlorine (calcium hypochlorite).

REQUESTING SERVICE

Please take a moment to familiarize yourself with the Kohler Warranty, its benefits, and limitations. Kohler Co. and its distributors support you with one of the largest Service Networks of its type. Here's what you need to do if you require service:

FIRST:

Contact the dealer or contractor who sold and installed the product. They should be able to solve any problems you may have.

SECOND: If your dealer or contractor cannot solve the problem, they will contact or supply you with the name of the local Kohler Distributor and the:



KOHLER TECHNICAL SPECIALIST

THIRD:

If you are unable to obtain warranty service through either your contractor or Kohler Co. distributor, please write us directly at Kohler Co., Consumer Affairs, Kohler, Wisconsin 53044

FOURTH: Include all pertinent information regarding your claim, including a complete description of the product, model numbers, colors, finishes, and the date the product was installed. Include a description of the problem, and a photocopy of your invoice for the products involved. Also give us the name of the contractor and distributor.

LIMITED ONE-YEAR WARRANTY

Kohler plumbing fixtures and fittings are warranted free of manufacturing defects.

Kohler Co. will, at its election repair, replace, or make appropriate adjustment where Kohler Co. inspection discloses any such defects occurring in normal usage within one year after installation. Kohler Co. is not responsible for installation costs.

To obtain warranty service, contact Kohler Co. either through your Dealer or Plumbing Contractor or by writing Kohler Co., Attn: Consumer Affairs Department, Kohler, WI 53044 U.S.A.

Implied warranties, including that of merchantability, are expressly limited in duration to the duration of this warranty. Kohler Co. disclaims any responsibility for consequential damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so this limitation and exclusion may not apply to you. This warranty gives you specific legal rights. You may also have rights which vary from state to state.

This is our exclusive written warranty.

KOHLER CO., KOHLER, WISCONSIN 53044